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2006

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,481	07/11/2003	Tony Hollingsworth	NE-0004	8213
7590	03/17/2006		EXAMINER	
Jane Massey Licata Licata & Tyrrell P.C. 66 E. Main Street Marlton, NJ 08053			JOYCE, CATHERINE	
			ART UNIT	PAPER NUMBER
			1642	

DATE MAILED: 03/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/618,481	HOLLINGSWORTH ET AL.	
	Examiner Catherine M. Joyce	Art Unit 1642	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 12 January 2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) 2 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1 and 3 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input checked="" type="checkbox"/> Other: <u>App. A (2p) & App. B(2p)</u>

1. Claims 1-3 are pending, and claim 2 is withdrawn from consideration as being drawn to a non-elected invention
2. Claims 1 and 3 are under examination.
3. Applicant's election with traverse of Group I, claims 1 and 3, in the reply filed on January 12, 2006 is acknowledged. The traversal is on the ground(s) that searching Groups I and II together would not pose a search burden. This argument is not found persuasive because, while the searches for the inventions of groups I and II would be overlapping they would not be coextensive. The search for the invention of group I would include a search for a composition comprising the recited polypeptide, whatever the intended use of the composition, whereas a search for the method of method of group II would include a search on all methods of treating cancer with MUC-1 compositions, including DNA compositions. Therefore, a search for one group would not be coextensive with a search for the other group. Thus, the requirement for restriction is deemed proper and is therefore made FINAL.
4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 1642

5. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Hoover (1993, J. Clin. Oncol. 11(3):390-9), as evidenced by Byrd (2004, Cancer and Metastasis Review 23:77-99).

The claims are drawn to a composition for preventing or treating cancer in a subject comprising at least a portion of a MUC1 cytoplasmic tail peptide of SEQ ID NO:1 (claim 1), wherein at least a portion of a MUC1 cytoplasmic peptide of SEQ ID NO:1 comprises a vaccine.

It is noted that the recitation of "for preventing or treating cancer" in claim 1 and "comprises a vaccine" are merely suggestive of an intended use and are not given weight for purposes of comparing the claims with the prior art. The claims read on the active ingredient *per se*, which is "at least a portion of a MUC1 cytoplasmic tail peptide of SEQ ID NO:1".

Hoover et al. describe clinical trials wherein patients with Dukes' B2 or C3 were treated with an autologous tumor-bacillus Calmette-Guerin (BCG) vaccine composition (abstract). The vaccine compositions comprised a patient's autologous tumors cells combined with bacillus Calmette-Guerin. As evidenced by Byrd et al., MUC-1 is expressed in colon cancer cells (page 82). Thus, the autologous tumor cell vaccine compositions of Hoover would comprise a cytoplasmic tail peptide of SEQ ID NO:1. Thus, all of the claim limitations are met.

6. Claims 1 and 3 are rejected under 35 U.S.C. 102(e) as being anticipated by WO 02/058450.

The claims are drawn to a composition for preventing or treating cancer in a subject comprising at least a portion of a MUC1 cytoplasmic tail peptide of SEQ ID NO:1 (claim 1), wherein at least a portion of a MUC1 cytoplasmic peptide of SEQ ID NO:1 comprises a vaccine.

Art Unit: 1642

It is noted that the recitation of “for preventing or treating cancer” in claim 1 and “comprises a vaccine” are merely suggestive of an intended use and are not given weight for purposes of comparing the claims with the prior art. The claims read on the active ingredient *per se*, which is “at least a portion of a MUC1 cytoplasmic tail peptide of SEQ ID NO:1”.

WO 02/058450 describes a composition comprising a polypeptide having the amino acid sequence of SEQ ID NO:1 of the instant application, which is a molecule comprising at least a portion of cytoplasmic tail, a composition comprising a polypeptide having the amino acid sequence of amino acid residues 1 to 42 of SEQ ID NO:1 of the instant application, which is a molecule comprising at least a portion of the cytoplasmic tail, and a composition comprising a polypeptide having the amino acid sequence of amino acid residues 22 to 72 of SEQ ID NO:1 of the instant application, which is a molecule comprising at least a portion of the cytoplasmic tail (page 46, Example 6, and Figure 7A). A comparison of the cited sequences with SEQ ID NO:1 is included herewith as an Appendix A to this Action.

7. Claims 1 and 3 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent 6,548,643.

The claims are drawn to a composition for preventing or treating cancer in a subject comprising at least a portion of a MUC1 cytoplasmic tail peptide of SEQ ID NO:1 (claim 1), wherein at least a portion of a MUC1 cytoplasmic peptide of SEQ ID NO:1 comprises a vaccine.

It is noted that the recitation of “for preventing or treating cancer” in claim 1 and “comprises a vaccine” are merely suggestive of an intended use and are not given weight for purposes of comparing the claims with the prior art. The claims read on the active ingredient *per se*, which is “at least a portion of a MUC1 cytoplasmic tail peptide of SEQ ID NO:1”.

US Patent 6,548,643 teaches conjugates between an antigen and a carbohydrate polymer, wherein the conjugates may be immunogenic vaccines, and wherein the conjugates may especially comprise contain one or more repeated subunits of human mucin or non-repeated repeated regions of human mucin (abstract). US Patent 6,548,643 also teaches that immunogenic peptides may be derived from the extracellular region or intracellular region of MUC1 (column 8, lines 14-16), and that preferred peptides comprises amino acids 1-21 or 35-54 of the intracellular portion of MUC 1 (i.e. of SEQ ID NO:1 of the instant application) (columns 7 and 8, lines 25-43 and SEQ ID NOs:16 and 17), which are at least a portion of cytoplasmic tail. A comparison of the cited sequences with SEQ ID NO:1 is included herewith as an Appendix to this Action. Thus, all of the claim limitations are met.

8. No claims are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catherine M. Joyce whose telephone number is 571-272-3321. The examiner can normally be reached on Monday thru Friday, 10:15 - 6:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Siew can be reached on 571-272-0787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Susan Unger
Susan Unger
Primary Patent Examiner

Application/Control Number: 10/618,481
Art Unit: 1642

Page 6

Catherine Joyce
Examiner
Art Unit 1642

Appendix A \ page 1

in the presence of the test compound.

PT
XX
PS

Example 6; FIG 7A; 82pp; English.

XX
CC

The present sequence is the cytoplasmic domain (CD) of mucin MUC1, a glycoprotein expressed aberrantly at high levels over the surface of carcinoma cells. MUC1 binds via its CD to c-Src, epidermal growth factor receptor (EGF-R), p120ctn and protein kinase C (PKC)-delta, c-Src, EGF-R and PKC-delta phosphorylate the MUC1 CD, leading to enhanced binding of beta-catenin to MUC1. Phosphorylation by EGF-R leads to enhanced binding of c-Src to MUC1. The invention features methods of identifying compounds that inhibit (a) the binding of MUC1 to a tumour progressor (e.g. beta-catenin, c-Src, EGF-R, p120ctn, or PKC-delta) and/or (b) phosphorylation of MUC1 by tumour progressors with kinase activity (e.g. g. c-Src, EGF-R or PKC-delta). The invention also includes a method for identifying a compound that enhances binding to, and phosphorylation of, MUC1 by glycogen synthase kinase 3-beta. An anti-sense oligonucleotide that hybridizes to a MUC1 transcript or to a tumour progressor transcript can be used to inhibit expression of MUC1 or a tumour progressor in a cancer cell, especially a breast cancer cell, or a lung, colon, pancreatic, renal, stomach, liver, bone, haematological (e.g. leukaemia, lymphoma), neural tissue, melanoma, ovarian, testicular, prostate, cervical, vaginal, or bladder cancer cell. A peptide fragment (see ABB7984) of the MUC1 CD, or a polynucleotide encoding it, can be used to inhibit binding of MUC1 to beta-catenin in a cancer cell that expresses MUC1

SQ Sequence 72 AA;

Query Match 100.0%; Score 395; DB 5; Length 72;
Best Local Similarity 100.0%; Pred. No. 8.2e-43; Mismatches 0; Indels 0; Gaps 0;
Matches 72; Conservative 0; MisMatch 0;

QY 1 CQCERRKNGQDIDPARDTHPMSEPYPTITHGRVYPPSSTDSPRSPEVKISAGNGSSLSY 60
Db 1 CQCERRKNGQDIDPARDTHPMSEPYPTITHGRVYPPSSTDSPRSPEVKISAGNGSSLSY 60
QY 61 TNPAVAASANTL 72
Db 61 TNPAVAASANTL 72

RESULT 2
ADV53531

ID ADV53531 standard; protein; 146 AA.
XX
AC ADV53531;
XX
DT 19-MAY-2005 (first entry)

DB Truncated MUC1 growth factor receptor isoform, SEQ ID 37.
KW antibody; antigen-binding fragment; MUC1 receptor;
KW growth factor receptor; cancer; cytostatic.
OS Homo sapiens.
PN WO2005019269-A2.
XX
PD 03-MAR-2005.

PP 26-AUG-2004; 2004WO-US027954.
XX
PR 26-AUG-2003; 2003US-0498260P.
XX
PA (MINE-) MINERVA BIOTECHNOLOGIES CORP.
PI Bandad CC;
XX
DR WPI; 2005-214228/22.
XX
PT Antibody or antigen-binding fragment that specifically binds to a

PT tetrapeptide sequence which is portion of MUC1 receptor that functions as growth factor receptor, useful for diagnosing and treating cancer.

PT
XX
PS

Claim 68; SEQ ID NO 37; 204bp; English.

XX
CC

The invention relates to a novel antibody or its antigen-binding fragment that specifically binds to a tetrapeptide sequence which is a portion of a MUC1 receptor that functions as a growth factor receptor. The invention further comprises a series of compositions, methods, kits, articles and species associated primarily with the diagnosis and/or treatment of cell proliferation, specifically cancer. The antibody or its antigen-binding fragment is useful for treating a subject having cancer caused by aberrant expression of MUC1, which involves administering the antibody or its antigen-binding fragment in an amount effective to block interaction of a natural ligand and portion of MUC1 receptor that remains attached to the cell surface after cleavage of the receptor, or in an amount effective to reduce shedding of an interchain binding region of the MUC1 receptor. The antibody or its antigen-binding fragment has cytostatic activity. The cancer may be of the breast, prostate, lung, ovary, colorectal, pancreatic and brain. The antibody or its antigen-binding fragment is useful for determining aggressiveness and/or metastatic potential of a cancer, which involves contacting a sample obtained from a subject suspected of having cancer with the antibody or its antigen-binding fragment that specifically binds to peptides expressed on the cell surface, and determining the amount of the antibody or its antigen-binding fragment bound to the sample. The antibody or its antigen-binding fragment is useful for diagnosing the presence of absence of cancer or the aggressiveness of a cancer. This sequence represents a truncated MUC1 growth factor receptor isoform of the invention.

SQ Sequence 146 AA;

Query Match 100.0%; Score 395; DB 9; Length 146;
Best Local Similarity 100.0%; Pred. No. 2.1e-42; Mismatches 0; Indels 0; Gaps 0;
Matches 72; Conservative 0; MisMatch 0;

QY 1 CQCERRKNGQDIDPARDTHPMSEPYPTITHGRVYPPSSTDSPRSPEVKISAGNGSSLSY 60
Db 75 CQCERRKNGQDIDPARDTHPMSEPYPTITHGRVYPPSSTDSPRSPEVKISAGNGSSLSY 134
QY 61 TNPAVAASANTL 72
Db 135 TNPAVAASANTL 72

RESULT 3
ADV53532

ID ADV53532 standard; protein; 171 AA.
XX
AC ADV53532;
XX
DT 19-MAY-2005 (first entry)

DB Truncated MUC1 growth factor receptor isoform, SEQ ID 38.
KW antibody; antigen-binding fragment; MUC1 receptor;
KW growth factor receptor; cancer; cytostatic.
OS Homo sapiens.
PN WO2005019269-A2.
XX
PD 03-MAR-2005.

PP 26-AUG-2004; 2004WO-US027954.
XX
PR 26-AUG-2003; 2003US-0498260P.
XX
PA (MINE-) MINERVA BIOTECHNOLOGIES CORP.
PI Bandad CC;
XX
DR WPI; 2005-214228/22.

PT
XX
PS

RESULT 3
 US-09-134-916A-2 Application US/09134916A
 Sequence 2, Application US/09134916A
 Patent No. 6328956
 GENERAL INFORMATION:
 APPLICANT: CHAMBON, Pierre
 APPLICANT: KLEINY, Marie-Paule
 APPLICANT: LATHE, Richard
 TITLE OF INVENTION: PHARMACEUTICAL COMPOSITION FOR THE TREATMENT OR PREVENTION OF A MALIGNANT TUMOR
 NUMBER OF SEQUREMENTS: 5
 CORRESPONDENCE ADDRESS: TREATMENT OR PREVENTION OF A MALIGNANT TUMOR
 ADDRESSEE: BURNS, DOANE, SWECKER & MATHIS, L.L.P.
 STREET: P.O. Box 1404
 CITY: Alexandria
 STATE: Virginia
 COUNTRY: United States
 ZIP: 22313-1404
 COMPUTER READABLE FORM:
 MEDIUM TYPE: FLOPPY DISK
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: Patent In Release #1.0, Version #1.30
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/09/134,916A
 FILING DATE:
 CLASSIFICATION:
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US/08/479,537
 FILING DATE: 07-JUN-1995
 APPLICATION NUMBER: FR 90/113101
 FILING DATE: 23-OCT-1990
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: WO PCT/FR91/00835
 FILING DATE: 23-OCT-1991
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 08/039,320
 FILING DATE: 04-APR-1993
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 08/413,576
 FILING DATE: 14-MAR-1995
 ATTORNEY/AGENT INFORMATION:
 NAME: Teskin, Robin L.
 REGISTRATION NUMBER: 35,030
 REFERENCE/DOCKET NUMBER: 011753-025
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (703) 836-6620
 TELEX/FAX: (703) 836-2021
 INFORMATION FOR SEQ ID NO: 2:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 2035 amino acids
 TYPE: amino acid
 STRANDEDNESS: single
 TOPOLOGY: linear
 MOLECULE TYPE: Peptide
 FEATURE:
 NAME/KEY: Peptide
 LOCATION: 128..1899
 OTHER INFORMATION: /note= "The amino acids spanning 128 to 1899 constitute a repeated region wherein the repeat repeats varies from 1 to 40."
 FEATURE:
 NAME/KEY: Peptide
 LOCATION: 134
 OTHER INFORMATION: /note= "Amino acid 134 is X1 = Xaa which is the codon for Pro or Ala wherein Pro = CCT, CCC, CCA, or CGG; and Ala = GCT, GCC, GCA, or GCG."
 OTHER INFORMATION: CCC, CCA, or CGG; and Ala = GCT, GCC, GCA, or GCG."
 FEATURE:
 NAME/KEY: Peptide

RESULT 4
 US-09-593-870A-16
 Sequence 16, Application US/09593870A
 Patent No. 6548643
 GENERAL INFORMATION:
 APPLICANT: McKenzie, Ian F.C.
 APPLICANT: Apostolopoulos, Vassos
 APPLICANT: Pietersz, Geoff Allan
 TITLE OF INVENTION: Antigen Carbohydrate Compounds and Their Use in Immunotherapy
 FILE REFERENCE: 2368-McKenzie
 CURRENT APPLICATION NUMBER: US/09/593,870A
 CURRENT FILING DATE: 2000-05-14
 PRIOR APPLICATION NUMBER: 09/223,043
 PRIOR FILING DATE: 1998-12-30
 SOFTWARE: FaastSEQ For Windows Version 3.0
 NUMBER OF SEQ ID NOS: 69
 SEQ ID NO: 16
 LENGTH: 23
 TYPE: PRT
 ORGANISM: Homo sapiens
 US-09-593-870A-16
 Query Match 31.4%; score 124; DB 2; Length 23;
 Best Local Similarity 100.0%; Pred. No. 1.2e-08;
 Matches 21; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Feature:
 Qy 1 CQCRRNQGQDIPFARDTH 21
 Db 3 CQCRRNQGQDIPFARDTH 23
 RESULT 5
 US-09-593-870A-17
 Sequence 17, Application US/09593870A
 Patent No. 6548643
 GENERAL INFORMATION:
 APPLICANT: McKenzie, Ian F.C.
 APPLICANT: Apostolopoulos, Vassos
 APPLICANT: Pietersz, Geoff Allan
 TITLE OF INVENTION: Antigen Carbohydrate Compounds and Their Use in Immunotherapy
 FILE REFERENCE: 2368-McKenzie

CURRENT APPLICATION NUMBER: US/09/593, 870A
 CURRENT FILING DATE: 2000-05-14
 PRIORITY APPLICATION NUMBER: 09/223, 043
 PRIORITY FILING DATE: 1998-12-30
 NUMBER OF SEQ ID NOS: 69
 SEQ ID NO: 17
 SOFTWARE: FastSEQ for Windows Version 3.0
 LENGTH: 20
 TYPE: PRT
 ORGANISM: Homo sapiens

US-09-593-870A-17
 Query Match 27.1%; Score 107; DB 2; Length 20;
 Best Local Similarity 100.0%; Pred. No. 1 3e-06;
 Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 35 YVPPSSTDRSPYKVSGNG 54
 Db 1 YVPPSSTDRSPYKVSGNG 20

RESULT 6

US-09-593-870A-48
 Sequence 48, Application US/09593870A
 Patent No. 6546643

GENERAL INFORMATION:
 APPLICANT: McKenzie, Ian F.C.
 APPLICANT: Apostolopoulos, Vassos
 APPLICANT: Pieterz, Graff, Allan
 TITLE OF INVENTION: Antigen Carbohydrate Compounds and Their
 TITLE OF INVENTION: Use in Immunotherapy
 FILE REFERENCE: 2388-McKenzie
 CURRENT APPLICATION NUMBER: US/09/593, 870A
 CURRENT FILING DATE: 2000-06-14
 PRIORITY APPLICATION NUMBER: 09/223, 043

PRIOR FILING DATE: 1998-12-30
 NUMBER OF SEQ ID NOS: 69
 SOFTWARE: FastSEQ for Windows Version 3.0
 SEQ ID NO: 48
 LENGTH: 21

TYPE: PRT
 ORGANISM: Homo sapiens

Query Match 27.1%; Score 107; DB 2; Length 21;

Best Local Similarity 100.0%; Pred. No. 1 3e-06; Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0; Gaps 0;

QY 35 YVPPSSTDRSPYKVSGNG 54
 Db 2 YVPPSSTDRSPYKVSGNG 21

RESULT 7

US-09-593-870A-48
 Sequence 3, Application US/09593870A

GENERAL INFORMATION:
 APPLICANT: Pot, David A.
 APPLICANT: Williams, Lewis T.

APPLICANT: Jefferson, Anne Bennett
 APPLICANT: Majerus, Philip W.
 TITLE OF INVENTION: No. 6396846 Grb2 Associating Protein and Nucleic
 TITLE OF INVENTION: Acids Encoding Therefor
 NUMBER OF SEQUENCES: 10

CORRESPONDENCE ADDRESS:

ADDRESSEE: Townsend and Townsend and Crew
 STREET: One Market Plaza, Steuart Tower, Suite 2000
 CITY: San Francisco
 STATE: California
 COUNTRY: USA

ZIP: 94105
 COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: PatentIn Release #1.0, version #1.25
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/09/418, 540
 FILING DATE: 14-OCT-1999
 CLASSIFICATION:
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 09/560, 005
 FILING DATE: 17-NOV-1995
 ATTORNEY/AGENT INFORMATION:
 NAME: Dow, Karen B.

CORRESPONDENCE ADDRESS:
 ADDRESSE: Townsend and Townsend and Crew
 STREET: One Market Plaza, Steuart Tower, Suite 2000
 CITY: San Francisco
 STATE: California
 COUNTRY: USA
 ZIP: 94105
 COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: PatentIn Release #1.0, Version #1.25
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/560, 005
 FILING DATE: 23-OCT-2000
 CLASSIFICATION: 435
 ATTORNEY/AGENT INFORMATION:
 NAME: Dow, Karen B.
 REGISTRATION NUMBER: 29, 684
 REFERENCE/DOCKET NUMBER: 2307K-0624000
 TELEPHONE: 415-326-2400
 TELEFAX: 415-326-2422
 INFORMATION FOR SEQ ID NO: 3:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 398 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULAR TYPE: protein
 FEATURE:
 NAME/KEY: Region
 LOCATION: 1..398
 OTHER INFORMATION: /note= "celegptase"

US-09-593-870A-48
 Sequence 3, Application US/09593870A

GENERAL INFORMATION:
 APPLICANT: Pot, David A.
 APPLICANT: Williams, Lewis T.

APPLICANT: Jefferson, Anne Bennett
 APPLICANT: Majerus, Philip W.
 TITLE OF INVENTION: No. 6396846 Grb2 Associating Protein and Nucleic
 TITLE OF INVENTION: Acids Encoding Therefor
 NUMBER OF SEQUENCES: 10

CORRESPONDENCE ADDRESS:

ADDRESSEE: Townsend and Townsend and Crew
 STREET: One Market Plaza, Steuart Tower, Suite 2000
 CITY: San Francisco
 STATE: California
 COUNTRY: USA

ZIP: 94105
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 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: PatentIn Release #1.0, version #1.25
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/09/418, 540
 FILING DATE: 14-OCT-1999
 CLASSIFICATION:
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 09/560, 005
 FILING DATE: 17-NOV-1995
 ATTORNEY/AGENT INFORMATION:
 NAME: Dow, Karen B.